

In the Specification:

Please AMEND the specification as follows:

Page 2, paragraph 1:

Glaucomas result from obstructed outflow from the aqueous humor, resulting in elevated intraocular pressure in the anterior chamber and visual loss attributed to progressive damage of the optic nerve, and consequent loss of retinal ganglion cells (Quigley *et al.*, *Invest. Ophthalmol. Vis. Sci.* 19:505-517 (1980)). Elevated intraocular pressure can also be caused by other conditions, such as impaired intraocular fluid transport caused by eye surgery, including surgery for glaucoma.

Page 2, paragraph 3, and page 3, to line 6:

Figure 1 depicts a minimalist, and necessarily incomplete, consensus model of aqueous humor secretion. (Carrè *et al.*, *Curr Eye Res* 11:609-624 (1992); Chu *et al.*, *Invest Ophthalmol Vis Sci* 28:1644-1648 [[445-450]] (1987); Wolosin *et al.*, *Exp Eye Res* 64:945-952 (1997)). As shown, NaCl is taken up from the stroma into the pigmented ciliary epithelial (PE) cells, supported by paired Na^+/H^+ and $\text{Cl}^-/\text{HCO}_3^-$ antiports, and the $\text{Na}^+-\text{K}^+-2\text{Cl}^-$ symport. (Kaufman *et al.*, In: Textbook of Ophthalmology, Vol. 7, Podos & Yanoff (eds), Mosby, St Louis, pp 9.7-9.30 (1994); McLaughlin *et al.*, *Invest Ophthalmol Vis Sci* 39:1631-1641 (1998), Walker *et al.*, *Am J Physiol* 276:C1432-1438 (1999); Wiederholt *et al.*, In: Carbonic Anhydrase, Botré, Gross, Storey (eds), VCH, New York, pp 232-244 (1991); Edelman *et al.*, *Am J Physiol* 266:C1210-C1221 (1994); Wiederholt *et al.*, *Pflügers Arch* 407(Suppl 2):S112-S115 (1986)). It then diffuses through gap junctions into the inner nonpigmented ciliary epithelial (NPE) cell layer ((Coca-Prados *et al.*, *Curr Eye Res* 11:113-122 (1992); Edelman *et al.*, 1994; Mitchell *et al.*, *FASEB J* 11:A301 (1998); Oh *et al.*, *Invest Ophthalmol Vis Sci* 35:2509-2514 (1994); Raviola *et al.*, *Invest Ophthalmol Vis Sci* 17:958-981 (1978); Walker *et al.*, 1999; Wolosin *et al.*, In: The Eye's Aqueous Humor: From Secretion to Glaucoma, Civan (ed), Academic Press, Boston, pp 135-162 (1998)). Finally, it is released into the aqueous humor through the Na^+, K^+ -exchange pump and Cl^- channels (Jacob *et al.*, *Am J Physiol* 271:C703-C720 (1996)).

Page 30, paragraph 2:

Reverse transcriptase-phosphorylase chain reaction (RT-PCR). Total RNA was extracted from a human ciliary body by the guanidine HCl method (Escribano *et al.*, *J Biochem* (Tokyo) 118(5):921-931 (1995)). The ocular tissue was obtained through the National Disease Research Interchange (Philadelphia, PA) from a 65 year old cadaver eye donor, with no past history of eye disease, within 24 h after enucleation. RNA (0.25 μ g) was reverse transcribed using the RETROscript kit (Ambion, Woodlands, TX). cDNA was subjected to hot start PCR. PCR mixes lacking only primers were preheated at 82°C for 1 minute. Then, gene-specific primers (Loffing *et al.*, *Am. J. Physiol.* 279:C1016-1023 (Oct. 2000) submitted, 1999) primer sequences available upon request) were injected into the mix through oil.

Page 32, paragraph 3, and page 33 to line 2:

$^{22}\text{Na}^+$ uptake. Figure 9 presents the data obtained with three inhibitors of the Na^+/H^+ antiport: EIPA (Frelin *et al.*, [[FEBS]] *Eur. J. Biochem.* 154:241-245 (1986)), cariporide (Scholz *et al.*, 1995), and amiloride (Counillon *et al.*, 1993). The apparent Ki values generated by the fits were: $0.068 \pm 0.002 \mu\text{M}$ for EIPA; $0.25 \pm 0.02 \mu\text{M}$ for cariporide; and $3.9 \pm 0.2 \mu\text{M}$ for amiloride. These values were then entered into [Equation 1] Equation 1 to construct the line fits shown in Figure 9: